

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number
WO 2005/083020 A1

(51) International Patent Classification⁷: C09D 127/12

(21) International Application Number: PCT/US2005/005574

(22) International Filing Date: 22 February 2005 (22.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/546,680 20 February 2004 (20.02.2004) US
60/636,565 16 December 2004 (16.12.2004) US

(71) Applicant (for all designated States except US): MYKROLIS CORPORATION [US/US]; 129 Concord Road, Billerica, MA 01821 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): WARGO, Christopher [US/US]; 45 Brook Street, Wellesley, MA 02482 (US). NIERMEYER, Karl [US/US]; 52 Groton Road, Tyngsborough, MA 01879 (US).

(74) Agent: MILLER, Raymond, A.; Pepper Hamilton LLP, One Mellon Center, 50th Floor, 500 Grant Street, Pittsburgh, 15219 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/083020 A1

(54) Title: NON-POROUS ADHERENT INSERT COATINGS AND METHODS OF MAKING

(57) Abstract: The present invention includes non-porous adherent coatings of chemically inert high purity poly-oligomers deposited on substrates. The coatings are applied and cured on the substrates at relatively low temperatures which permits the coating process to be performed with temperature sensitive structures such as magnets, electronic circuits, electrodes, and bonding pads in place on the substrate. Coated substrates, such as sensors and fluid conduits, have an effective thickness of the protective non-porous coating that is chemically bonded to a surface of the substrate that will be contacted with a fluid. The adherent non-porous coating on the substrate protects it from corrosion, particle generation, swelling, or delamination caused by contact with the fluid.

BEST AVAILABLE COPY

